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Diastasis Recti: More than just a prenatal concern for trainers.
Recorded January 30, 2018

Course Type: Recorded 1 Hour Webinar

Course Level: All Levels

Course Objectives
After completing this course, you will be able to:
1. Describe diastases recti and how it occurs in the body.
2. Discuss why it is important for fitness professionals to check all of their clients for diastasis recti.
3. List 3 guidelines and evidence for why it is important to treat diastases recti.
4. Explain the 4 step Tupler Technique for healing diastases rectus.

Course Description
Diastasis recti is a separation of the outermost abdominal muscles (rectus abdominis). It is a condition that has been ignored by medical professionals because treatment for it has not been taught as part of their medical education. Side effects of diastasis recti are back and hip pain, abdominal hernias, GI problems such as bloating and constipation, pelvic floor problems and poor posture. This condition can put a pregnant woman at risk for a c-section and a person having abdominal surgery at risk for an incisional hernia. Improper exercise can make this condition worse! In the webinar, Julie Tupler, RN, creator of the research and evidenced based Tupler Technique®, will teach:

- Causes of a diastasis on women, men and children
- Effects on the body
- How to check for a diastasis 4 steps of the Tupler Technique®
- How to incorporate the Tupler Technnique® into an exercise routine so it is “diastasis safe”
- Understand the importance of checking for a diastasis and incorporating the Tupler Technique® into their clients exercise routine.

About the Presenter
Julie Tupler, RN
Julie Tupler is a Registered Nurse, Certified Childbirth Educator and Certified Personal Trainer. She developed the Maternal Fitness® Program in 1990 and for over 25 years has been teaching and developing the Tupler Technique® Program for treatment of diastasis recti for women, men and children. She also prepares clients for abdominal surgery and pregnant women for labor.
Dr. Oz calls her an expert on treating diastasis recti. New York Magazine calls her the guru for pregnant women. She has been featured on many national television programs such as the Today Show, Regis & Kelly as well as in many fitness, medical, and women’s health magazines.
The Tupler Technique® is the only research and evidence based program to treat a diastasis recti. Julie is now teaching the Tupler Technique® Program to medical and fitness professionals all over the world. She has written two bestselling books– Maternal Fitness (Simon & Schuster) and Lose

Your Mummy Tummy (DaCapo), and is coming out with her third book “Together Tummy” late April. She has produced five DVDs and invented the Diastasis Rehab Splint® and Diastometer™ for measuring diastasis. Julie has also developed a six week online support program for her clients. She is on the advisory board of Fit Pregnancy, Women’s Health Foundation and the Women’s Sports Foundation. She is a frequent speaker at medical and fitness conferences including the American Hernia Society where in 2011 and 2012 she presented abstracts about her program. Julie spoke on the non-surgical Tupler Technique® approach to Diastasis Recti at the first World Conference on Abdominal Wall Hernia Surgery, in Milan, Italy Center April, 2015.
Learn more at her website, diastasisrehab.com.

Course Outline

DIASTASIS RECTI:
More than just a pre-natal concern for Trainers
PROFESSIONALS **SHOULD CHECK EVERYBELLY® FOR A DIASTASIS RECTI**
WHY?
BECAUSE IT IS CONNECTED TO:

- BACK PAIN
- GI DISTURBANCES
- UMBILICAL HERNIA
- INCISIONAL HERNIA
- C-SECTION
- PELVIC FLOOR PROBLEMS

AND IMPROPER EXERCISE MAKES A DIASTASIS WORSE!
DIASTASIS RECTI **HAS BEEN IGNORED BY THE MEDICAL COMMUNITY**

- **To create “diastasis awareness”, I am teaching the Tupler Technique® to medical and fitness professionals all over the world.**
- **Survey in 2012 with 296 Physical Therapists showed that 29.4% were using the Tupler Technique® to treat diastasis recti.**
- Article*: Diastasis Recti Abdominis: A Survey of Women’s Health Specialists for Current Physical Therapy Clinical Practice for Postpartum Women* Published: Journal of Women’s Health Physical Therapy 2012 Vol 36 pg 131-138

TUPLER TECHNIQUE®RESEARCH & EVIDENCED BASED PROGRAM
Columbia University, Program in Physical Therapy Study
A study was conducted March 01, 2001 at on the effect of exercise on the diastasis recti (separation of outermost abdominal muscles) during pregnancy. Results demonstrated that women who had done the Tupler Technique® Program had a smaller diastasis than the control group of women who did not exercise during their pregnancy.
Journal of Women’s Health Physical Therapy Volume 29, No.1Spring, 2005
Tupler Technique® can make a Diastasis 55% smaller in six weeks
To create “diastasis awareness”, I am teaching the
Tupler Technique® to medical and fitness professionals all over the world
Tupler Technique® can make a Diastasis 55% smaller in six weeks
CLOSING A DIASTASIS WITH TUPLER TECHNIQUE ® IS ABOUT HEALING CONNECTIVE TISSUE
CONNECTIVE TISSUE CAN BE HEALED ON EVERYBELLY® **AT ANY TIME**
THE TUPLER TECHNIQUE® HEALS CONNECTIVE TISSUE BY:

- Positioning the connective tissue and muscles in the proper position
- Protecting the connective tissue from intra-abdominal force, pressure and movements that stretch it
- Strengthening the transverse muscle which then puts tension on repositioned connective tissue

THE FORCE BE WITHOUT YOU!
You use your transverse muscle with every breath you take and every move you make.
If you do not consciously engage your transverse muscle before you move or with body functions, it will be putting force on your connective tissue and stretching it even further. (ie stand, sit, sneeze, cough, bowel movement). Goal is to take stretch off the connective tissue.

DON'T WANT TO STRETCH YOUR CONNECTIVE TISSUE FORWARDS OR SIDEWAYS

FORWARD: Not engaging transverse

SIDEWAYS:

Flaring your ribs (arching your lower back, swimming strokes like back and breaststroke, backbends)

Forward cross over movement (shearing movement) with activities like tennis, golf & side to side crunches.

PRESSURE STRETCHES YOUR CONNECTIVE TISSUE!

Stretching comes from pressure on connection tissue from:

- Abdominal facing down position puts weight of organs on connective tissue (no planks, pushups, swimming)
- Weight of baby from wearing a front loading baby carrier
- Weight of exercise equipment when putting them on abdominals to make exercise harder.
- Pressure of growing uterus during pregnancy.
- Air being injected into belly during surgery
- Chronic constipation

CRUNCHES WEAKEN THE RECTI MUSCLE

- IT IS IMPOSSIBLE TO ENGAGE THE TRANSVERSE MUSCLE WHEN THE SHOULDERS COME OFF THE FLOOR.
- IF YOU CAN'T ENGAGE THE TRANSVERSE MUSCLE IT IS GOING FORWARD FORCEFULLY MAKING THE RECTI LONGER AND PUTTING PRESSURE ON CONNECTIVE TISSUE.
- RECTI NEEDS TO BE SHORTENED TO BE STRENGTHENED.
- THAT'S WHY YOU SHOULD NEVER EVER DO CRUNCHES AGAIN!

4 –STEP TUPLER TECHNIQUE®

1. Exercises: Elevator, Contracting, Headlifts
2. Splinting: Wearing and Holding
3. Using Your Transverse
4. Getting Up & Down Correctly

TUPLER TECHNIQUE® GUIDELINES

- During the first six weeks we recommend only cardio exercise such as walking, treadmill and upright stationary bike. No running, weights or exercise programs.
- This allows the connective tissue to heal while you strengthen the transverse muscle.
- In week six of the program our clients will learn how to incorporate the Tupler Technique® into an exercise routine and how to modify their routine so it is "diastasis safe" whether they still have a diastasis or not.

SPLINTING

- Purpose of a Diastasis Rehab Splint® is re- positioning the connective and muscles. Taking the stretch off the stretched out connective tissue and bringing the muscles together so they go backwards instead of sideways making the exercises more effective.
- Purpose of a binder is compression of the muscles. That is the job of the transverse muscle!

IMPORTANCE OF POSITIONING CONNECTIVE TISSUE AND MUSCLES

- Women ask if they can do the exercises without wearing a splint. If you cannot wear the splint, it is important to "hold" a splint (scarf or arms of sweater) to approximate the muscles and connective tissue when doing the exercises.
- If women have a large diastasis (4 fingers or more) when they engage the transverse the recti moves sideways. Moving sideways does not strengthen it. To strengthen it, it must shorten. This is a "backwards" movement when you are shortening it from front to back.
- A sideways movement of the muscles stretches the connective tissue. The purpose of the splint is to take the stretch off the connective tissue.

DOUBLE SPLINTING

- Double splinting is wearing a splint and holding a splint. The splint you hold can be a scarf or the arms of your sweater or shirt.
- Double splinting is started in week 4 of the program after the transverse muscle has been strengthened.
- Double splinting is done with the seated contracting exercise and with the head lifts.

- The location of where you “hold” the splint is at the top, middle and bottom.
- Double splinting is recommended in labor to keep the uterus from tilting over. If it is uncomfortable to wear the splint in labor, just holding a splint is fine. So remember to tell your pregnant women to pack a scarf in the bag they take to the hospital!

TOGETHERTAPE™ & CORRECTIVE CONNECTIVE TISSUE CREAM

NEW PROJECT FOR HEALING CONNECTIVE TISSUE

- I am working with an osteopathic doctor in California. We have developed an exciting new treatment protocol that combines the Tupler Technique® Program with a Regenerative Platelet Procedure to help strengthen the linea alba. This is done in Week 4 of the program after client has developed transverse strength & awareness.
- What is this Regenerative Platelet Procedure? Platelets are found in your blood and are responsible for forming a clot when you cut yourself. These platelets contain growth factors that are able to induce healing. Using custom processing of the blood, a concentration of platelets (PRP or platelet rich plasma) and growth factors (PL or platelet lysate) are created. With the amazing success of using this procedure on other parts of the body (back, hip, shoulder and knee), we found that injecting these platelet solutions along your linea alba sped up the healing process of the connective tissue. Healing connective tissue is not an overnight process, so we are optimistic that adding this procedure to my program will be instrumental in closing a diastasis much faster.
- We used ultrasound to compare the condition of the connective tissue before and after the program. We found the connective tissue got thicker.

MOST PROFESSIONALS CHECK A DIASTASIS INCORRECTLY!

- Checking the distance between the two muscles. How many fingers fit in the gap when it is the largest!
- Checking the condition of the connective tissue.
- Before you check, have client come up to check to see if there is the half football like bulge. If so, use two hands when checking.
- If the belly button is an outie, you will usually also need to use two hands.
- Since finger size is not that reliable I have developed a device called a diastometer™ to check the distance and condition of the connective tissue in centimeters. Video on my website shows how to use it.
- Diastasis is checked at belly button, halfway between the belly button and bottom of sternum on top and halfway between the pubic bone and the belly button on the bottom.

EVERYONE IS BORN WITH A DIASTASIS

- It usually comes together around 3 years old after the nervous system develops.
- However, sometimes it does NOT come together and even if it does come together it can open up again when the connective tissue is stretched with continuous force. For example chronic constipation as a baby.
- There is always a weak spot in the linea alba at the umbilicus.

KIDS CAN CREATE IT!

BY DOING:

- CRUNCHES
- GYMNASTICS
- SWIMMING
- TENNIS
- WEIGHT TRAINING
- SOFTBALL
- GOLF

IS THERE A LINK BETWEEN DIASTASIS AND PELVIC FLOOR PROBLEMS?

In 2007 (Spitznagle et al) found, that out of 541 women referred for either stress urinary incontinence, fecal incontinence or a vaginal prolapse, 52% of them also had a diastasis recti. The women with a diastasis all had weaker pelvic floor muscles compared to women without a DRA. The failure to correct a DRA could therefore over time be more than a cosmetic issue but lead to incontinence and vaginal prolapse.

Reference:

Spitznagle., T.M., Leong.,F.C., Dillen., L.R.V (2007) Prevalence of diastasis recti abdominis in a urogynecological patient population. Int Urogynecol Journal. 18: 321-328

DIASTASIS RECTI PUTS WOMEN AT RISK FOR A C-SECTION

- Displacement of uterus
- Top heavy uterus tilts forward as there is no support with weak connective tissue when the muscles separate.
- When top tilts forward cervix goes from a downward facing position that is lined up with vaginal canal, to a sideways facing position.

SURGERY FOR DIASTASIS IS SEWING: AND SEWING CAN COME UNDONE WITH CONTINUOUS INTRA-ABDOMINAL FORCE!

UMBILICAL HERNIA & DIASTASIS RECTI

- An umbilical hernia is a side effect of a diastasis recti. When the connective tissue stretches sideways the umbilicus loses its support.
- If the muscles are open above and below the hernia and you sew the middle, the chance of recurrence is inevitable.
- Any abdominal surgery that comes undone is called an "incisional hernia."
- Making the diastasis smaller before surgery as well as knowing how to use the strengthened abdominal muscles in the recovery process will maintain the integrity of the sutures.

RECURRENCE INFO

- Incisional hernias are very common. They are the second most common type of hernia after inguinal hernias. Approximately 4 million laparotomies are performed in the United States annually, 2%-30% of them resulting in incisional hernia.[1]
- Between 100,000 and 150,000 ventral incisional hernia repairs are performed annually in the United States.[2]

(1)Rutkow IM. Demographic and socioeconomic aspects of hernia repair in the United States in 2003. *Surg Clin North Am*. 2003;5:1045–51.

(2)Read RC, Yoder G. Recent trends in the management of incisional herniation. *Arch Surg*. 1989;124:485-488

STUDY OF INTRA- ABDOMINAL PRESSURE

- The most common complication of abdominal surgery is the incisional hernia despite ongoing clinical and experimental research on the linea alba suturing. Even after mesh implantation recurrent hernias are frequent.
- To gain better understanding of the biomechanics of the abdominal wall in relation to suture techniques and meshes, The Abdoman® project was developed. The goal was to create a dynamic artificial abdominal wall that can simulate rises in intra- abdominal pressure (i.e coughing) to observe the effects on suture techniques of the linea alba and mesh fixation techniques.
- A validated biomechanical model for the evaluation of different suture techniques of abdominal wall closure and mesh fixation has **NOT** yet been created

Hernia Abstract Book Vol 16 Supplement 1, March 2012 IP-1963; Jeekel, J; Erasmus University Rottendam, The Netherlands

AN END TO RECURRENCE

IT'S ALL ABOUT PREVENTING INTRA-ABDOMINAL FORCE (on sutures & connective tissue)
ONLY PATIENT CAN DO THIS!

JULIETTE SPENCER

Umbilical Hernia Surgery Prevented

Hi Julie,

I wanted to update you with my wonderful news. I visited the hernia surgeon at NYU and have been told I do not need the hernia surgery to repair the umbilical cord hernia. It's gone!

As you can imagine, I'm absolutely over the moon and cannot thank you enough for your knowledge and support. I'm so thrilled. The surgeon had said that she's never seen anything like and would love you as a resource for her patients. I've forwarded your details to her.

Thanks! ***Juliette Spencer***

CLIENT #1: BEFORE

Session One Diastasis Width : (10-10-9)

CLIENT #1: AFTER

Session Three Diastasis Width : (7-6-6)

CLIENT #2: BEFORE
Session One Diastasis Width : (5-6-4)
CLIENT #2: AFTER
Session Three Diastasis Width : (2-3-3)
CLIENT #3: BEFORE
Session One Diastasis Width : (8-8-4)
CLIENT #3: AFTER
Session Three Diastasis Width (3-4-3)
CLIENT #4: BEFORE
Session One Diastasis Width : (10-11-12)
CLIENT #4: AFTER
Session Four Diastasis Width : (6-6-6)
CLIENT #5: BEFORE
Session One Diastasis Width : (8-10-8)
CLIENT #5: AFTER
Session Three Diastasis Width : (4 - 3.5 - 3)
CLIENT # 6: BEFORE
Session One Diastasis Width : (10-10-10)
CLIENT #6: AFTER
Session Four Diastasis Width : (3-5-5)
CLIENT #7: BEFORE
Session One Diastasis Width : (3-4-3)
CLIENT #7: AFTER
Session Four Diastasis Width : (0-1-2)

Question and Answer Segment

REFERENCES

- Keeler, J., Albrecht, M., Eberhardt, L., et al. “Diastasis recti abdominis: a survey of women's health specialists for current physical therapy clinical practice for postpartum women.” J Womens Health Phys Therapy; 36:131–42, 2012.
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- Spitznagle., T.M., Leong.,F.C., Dillen., L.R.V (2007) Prevalence of diastasis recti abdominis in a urogynecological patient population. Int Urogynecol Journal. 18: 321-328
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